

X15815.ST25.National.txt  
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Douglas Raymond Perkins  
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<141> 2002-08-05  
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Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly Asp Tyr Ser Ile  
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100 105 110

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X15815.ST25.National.txt

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Cys Gly Ser Asp Cys Ile Arg His Lys Gly Thr Val Val Leu Cys Pro  
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Gly Trp Leu Pro Leu Leu Leu Leu Ser Leu Leu Val Ala Thr Trp Val  
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Lys Tyr His Leu Met Lys Asp Ala Thr Ala Phe Cys Ala Glu Leu Leu  
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 Tyr Ser Cys Val Arg Cys Asn Tyr Thr Glu Ala Phe Gln Thr Gln Thr  
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 Arg Pro Ser Gly Gly Lys Trp Thr Phe Ser Tyr Ile Gly Phe Pro Val  
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 Glu Leu Asn Thr Val Tyr Phe Ile Gly Ala His Asn Ile Pro Asn Ala  
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X15815.ST25.National.txt

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195 200 205

Ala Leu Ile Gln His Ser Thr Ile Ile Gly Phe Ser Gln Val Phe Glu  
210 215 220

Pro His Gln Lys Lys Gln Thr Arg Ala Ser Val Val Ile Pro Val Thr  
225 230 235 240

Gly Asp Ser Glu Gly Ala Thr Val Gln Gly Leu Ala Cys Pro Lys Ala  
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260 265 270

Glu Met Phe Val Tyr Val Leu Thr Pro Tyr Phe Pro Thr Cys Gly Ser  
275 280 285

Asp Cys Ile Arg His Lys Gly Thr Val Val Leu Cys Pro Gln Thr Gly  
290 295 300

Val Pro Phe Pro Leu Asp Asn Asn Lys Ser Lys Pro Gly Gly Trp Leu  
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325 330 335

Gly Ile Tyr Leu Met Trp Arg His Glu Arg Ile Lys Lys Thr Ser Phe  
340 345 350

Ser Thr Thr Thr Leu Leu Pro Pro Ile Lys Val Leu Val Val Tyr Pro  
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Gln Asn His Cys Arg Ser Glu Val Ile Leu Glu Lys Trp Gln Lys Lys  
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Lys Ile Ala Glu Met Gly Pro Val Gln Trp Leu Ala Thr Gln Lys Lys  
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Ala Ala Asp Lys Val Val Phe Leu Leu Ser Asn Asp Val Asn Ser Val  
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X15815.ST25.National.txt

Cys Asp Gly Thr Cys Gly Lys Ser Glu Gly Ser Pro Ser Glu Asn Ser  
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X15815.ST25.National.txt

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145 150 155 160

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165 170 175

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180 185 190

Thr Val Glu Val Asn Phe Thr Thr Thr Pro Leu Gly Asn Arg Tyr Met  
195 200 205

Ala Leu Ile Gln His Ser Thr Ile Ile Gly Phe Ser Gln Val Phe Glu  
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Pro His Gln Lys Lys Gln Thr Arg Ala Ser Val Val Ile Pro Val Thr  
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Cys Gly Ser Asp Cys Ile Arg His Lys Gly Thr Val Val Leu Cys Pro  
260 265 270

Gln Thr Gly Val Pro Phe Pro Leu Asp Asn Asn Lys Ser Lys Pro Gly  
275 280 285

Gly Trp Leu Pro Leu Leu Leu Leu Ser Leu Leu Val Ala Thr Trp Val  
290 295 300

Leu Val Ala Gly Ile Tyr Leu Met Trp Arg His Gly Ser Arg Arg Leu  
305 310 315 320

Pro Phe Leu Pro Pro His Tyr Cys Pro Pro Leu Arg Phe Leu Trp Phe  
325 330 335

Thr His Leu Lys Tyr Val Ser Ile Thr Gln Phe Val Thr Ser Leu Asn  
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Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu Arg Asp Leu  
 35 40 45

Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly Asp Tyr Ser Ile  
 50 55 60

Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp Ala Ser Ile Arg Leu  
 65 70 75 80

Leu Lys Ala Thr Lys Ile Cys Val Thr Gly Lys Ser Asn Phe Gln Ser  
 85 90 95

Tyr Ser Cys Val Arg Cys Asn Tyr Thr Glu Ala Phe Gln Thr Gln Thr  
 100 105 110

Arg Pro Ser Gly Gly Lys Trp Thr Phe Ser Tyr Ile Gly Phe Pro Val  
 115 120 125

Glu Leu Asn Thr Val Tyr Phe Ile Gly Ala His Asn Ile Pro Asn Ala  
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Asn Met Asn Glu Asp Gly Pro Ser Met Ser Val Asn Phe Thr Ser Pro  
 145 150 155 160

Gly Cys Leu Asp His Ile Met Lys Tyr Lys Lys Lys Cys Val Lys Ala  
 165 170 175

Gly Ser Leu Trp Asp Pro Asn Ile Thr Ala Cys Lys Lys Asn Glu Glu  
 180 185 190

Thr Val Glu Val Asn Phe Thr Thr Thr Pro Leu Gly Asn Arg Tyr Met  
 195 200 205

Ala Leu Ile Gln His Ser Thr Ile Ile Gly Phe Ser Gln Val Phe Glu  
 210 215 220

Pro His Gln Lys Lys Gln Thr Arg Ala Ser Val Val Ile Pro Val Thr  
 Page 11

225

230

235

240

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Gln Thr Gly Val Pro Phe Pro Leu Asp Asn Asn Lys Ser Lys Pro Gly  
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Gly Trp Leu Pro Leu Leu Leu Leu Ser Leu Leu Val Ala Thr Trp Val  
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 ttgtggcagc gactgcatcc gacataaagg aacagttgtg ctctgcccac aaacaggcgt 780  
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## X15815.ST25.National.txt

gtctctgctg gtggccacat ggggtgctggt ggcagggatc tatctaattgt ggaggcacga 900  
 agtgagggtca tccttgaaaa gtggcagaaa aagaaaatag cagagatggg tccagtgcag 960  
 tggcttgcca ctcaaaagaa ggcagcagac aaagtcgtct tccttctttc caatgacgtc 1020  
 aacagtgtgt gcgatggtac ctgtggcaag agcgagggca gtcccagtga gaactctcaa 1080  
 gacctcttcc cccttgccctt taaccttttc tgcagtgatc taagaagcca gattcatctg 1140  
 cacaaatacg tgggtggctta ctttagagag attgatacaa aagacgatta caatgctctc 1200  
 agtgtctgcc ccaagtacca cctcatgaag gatgccactg ctttctgtgc agaacttctc 1260  
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<220>  
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 <223> LP395

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Pro Arg Glu Pro Thr Val Gln Cys Gly Ser Glu Thr Gly Pro Ser Pro  
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Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu Arg Asp Leu  
 35 40 45

Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly Asp Tyr Ser Ile  
 50 55 60

Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp Ala Ser Ile Arg Leu  
 65 70 75 80

Leu Lys Ala Thr Lys Ile Cys Val Thr Gly Lys Ser Asn Phe Gln Ser  
 85 90 95

Tyr Ser Cys Val Arg Cys Asn Tyr Thr Glu Ala Phe Gln Thr Gln Thr  
 100 105 110

Arg Pro Ser Gly Gly Lys Trp Thr Phe Ser Tyr Ile Gly Phe Pro Val  
 115 120 125

Glu Leu Asn Thr Val Tyr Phe Ile Gly Ala His Asn Ile Pro Asn Ala  
 130 135 140

X15815.ST25.National.txt

Asn Met Asn Glu Asp Gly Pro Ser Met Ser Val Asn Phe Thr Ser Pro  
145 150 155 160

Gly Ser Leu Trp Asp Pro Asn Ile Thr Ala Cys Lys Lys Asn Glu Glu  
165 170 175

Thr Val Glu Val Asn Phe Thr Thr Thr Pro Leu Gly Asn Arg Tyr Met  
180 185 190

Ala Leu Ile Gln His Ser Thr Ile Ile Gly Phe Ser Gln Val Phe Glu  
195 200 205

Pro His Gln Lys Lys Gln Thr Arg Ala Ser Val Val Ile Pro Val Thr  
210 215 220

Gly Asp Ser Glu Gly Ala Thr Val Gln Leu Thr Pro Tyr Phe Pro Thr  
225 230 235 240

Cys Gly Ser Asp Cys Ile Arg His Lys Gly Thr Val Val Leu Cys Pro  
245 250 255

Gln Thr Gly Val Pro Phe Pro Leu Asp Asn Asn Lys Ser Lys Pro Gly  
260 265 270

Gly Trp Leu Pro Leu Leu Leu Leu Ser Leu Leu Val Ala Thr Trp Val  
275 280 285

Leu Val Ala Gly Ile Tyr Leu Met Trp Arg His Glu Val Arg Ser Ser  
290 295 300

Leu Lys Ser Gly Arg Lys Arg Lys  
305 310

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<212> DNA  
<213> Homo sapiens

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<222> (1)..(1567)  
<223> LP396

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ggactattca attttgatga atgtaagctg ggtactccgg gcagatgcca gcatccgctt 240  
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X15815.ST25.National.txt

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 tatttccta atgcaaatatga atgaagatgg cccttccatg tctgtgaatt tcacctcacc 480  
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 cactagagct gactccatat tttcctactt gtggcagcga ctgcatccga cataaaggaa 840  
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 <212> PRT  
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<220>  
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 <222> (1)..(277)  
 <223> LP396

<400> 12

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 1 5 10 15

Pro Arg Glu Pro Thr Val Gln Cys Gly Ser Glu Thr Gly Pro Ser Pro  
 20 25 30

Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu Arg Asp Leu  
 Page 15

35

Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly Asp Tyr Ser Ile  
50 55 60

Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp Ala Ser Ile Arg Leu  
65 70 75 80

Leu Lys Ala Thr Lys Ile Cys Val Thr Gly Lys Ser Asn Phe Gln Ser  
85 90 95

Tyr Ser Cys Val Arg Cys Asn Tyr Thr Glu Ala Phe Gln Thr Gln Thr  
100 105 110

Arg Pro Ser Gly Gly Lys Trp Thr Phe Ser Tyr Ile Gly Phe Pro Val  
115 120 125

Glu Leu Asn Thr Val Tyr Phe Ile Gly Ala His Asn Ile Pro Asn Ala  
130 135 140

Asn Met Asn Glu Asp Gly Pro Ser Met Ser Val Asn Phe Thr Ser Pro  
145 150 155 160

Gly Cys Leu Asp His Ile Met Lys Tyr Lys Lys Lys Cys Val Lys Ala  
165 170 175

Gly Ser Leu Trp Asp Pro Asn Ile Thr Ala Cys Lys Lys Asn Glu Glu  
180 185 190

Thr Val Glu Val Asn Phe Thr Thr Thr Pro Leu Gly Asn Arg Tyr Met  
195 200 205

Ala Leu Ile Gln His Ser Thr Ile Ile Gly Phe Ser Gln Val Phe Glu  
210 215 220

Pro His Gln Lys Lys Gln Thr Arg Ala Ser Val Val Ile Pro Val Thr  
225 230 235 240

Gly Asp Ser Glu Gly Ala Thr Val Gln Met Cys Asp Gln Gly Glu Asn  
245 250 255

Val His Asp Asn Thr Arg Ala Asp Ser Ile Phe Ser Tyr Leu Trp Gln  
260 265 270

Arg Leu His Pro Thr  
275

<210> 13  
<211> 1352  
<212> DNA  
<213> Homo sapiens

x15815.ST25.National.txt

<220>  
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 aatcccggga gacttgaggg acctccgagt agaacctgtt acaactagtg ttgcaacagg 180  
 ggactattca attttgatga atgtaagctg ggtactccgg gcagatgcca gcatccgctt 240  
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 gaggtgcaat tacacagagg ctttccagac tcagaccaga ccctctggtg gtaaattggac 360  
 attttcctac atcggtttcc ctgtagagct gaacacagtc tatttcattg gggcccataa 420  
 tattcctaatt gcaaatatga atgaagatgg cccttccatg tctgtgaatt tcacctcacc 480  
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 aagaagactt ctttttctac caccacacta ctgccccca ttaaggttct tgtggtttac 840  
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 gtgcagtggc ttgccactca aaagaaggca gcagacaaag tcgtcttcct tctttccaat 1020  
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 <212> PRT  
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<220>  
 <221> MISC\_FEATURE  
 <222> (1)..(252)  
 <223> LP397

<400> 14

X15815.ST25.National.txt

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1 5 10 15

Pro Arg Glu Pro Thr Val Gln Cys Gly Ser Glu Thr Gly Pro Ser Pro  
20 25 30

Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu Arg Asp Leu  
35 40 45

Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly Asp Tyr Ser Ile  
50 55 60

Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp Ala Ser Ile Arg Leu  
65 70 75 80

Leu Lys Ala Thr Lys Ile Cys Val Thr Gly Lys Ser Asn Phe Gln Ser  
85 90 95

Tyr Ser Cys Val Arg Cys Asn Tyr Thr Glu Ala Phe Gln Thr Gln Thr  
100 105 110

Arg Pro Ser Gly Gly Lys Trp Thr Phe Ser Tyr Ile Gly Phe Pro Val  
115 120 125

Glu Leu Asn Thr Val Tyr Phe Ile Gly Ala His Asn Ile Pro Asn Ala  
130 135 140

Asn Met Asn Glu Asp Gly Pro Ser Met Ser Val Asn Phe Thr Ser Pro  
145 150 155 160

Gly Cys Leu Asp His Ile Met Lys Tyr Lys Lys Lys Cys Val Lys Ala  
165 170 175

Gly Ser Leu Trp Asp Pro Asn Ile Thr Ala Cys Lys Lys Asn Glu Glu  
180 185 190

Thr Val Glu Val Asn Phe Thr Thr Thr Pro Leu Gly Asn Arg Tyr Met  
195 200 205

Ala Leu Ile Gln His Ser Thr Ile Ile Gly Phe Ser Gln Val Phe Glu  
210 215 220

Thr Lys Ala Ser Arg Glu Ala Gly Cys Leu Ser Ser Cys Cys Leu Cys  
225 230 235 240

Trp Trp Pro His Gly Cys Trp Trp Gln Gly Ser Ile  
245 250

<210> 15  
<211> 1399

## X15815.ST25.National.txt

<212> DNA  
<213> Homo sapiens

<220>  
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<222> (1)..(1399)  
<223> LP398

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<211> 96  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MISC\_FEATURE

X15815.ST25.National.txt

<222> (1)..(96)  
<223> LP398

<400> 16

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Pro Arg Glu Pro Thr Val Gln Cys Gly Ser Glu Thr Gly Pro Ser Pro  
20 25 30

Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu Arg Asp Leu  
35 40 45

Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly Asp Tyr Ser Ile  
50 55 60

Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp Val Asp Ile Phe Leu  
65 70 75 80

His Arg Leu Pro Cys Arg Ala Glu His Ser Leu Phe His Trp Gly Pro  
85 90 95

<210> 17  
<211> 1081  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (1)..(1081)  
<223> LP399

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cagacaaagt cgtcttcctt ctttccaatg acgtcaacag tgtgtgcgat ggtacctgtg 780

## X15815.ST25.National.txt

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 a 1081

<210> 18  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (1)..(93)  
 <223> LP399

<400> 18

Met Ser Leu Val Leu Leu Ser Leu Ala Ala Leu Cys Arg Ser Ala Val  
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Pro Arg Glu Pro Thr Val Gln Cys Gly Ser Glu Thr Gly Pro Ser Pro  
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Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu Arg Asp Leu  
 35 40 45

Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly Asp Tyr Ser Ile  
 50 55 60

Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp Ala Thr Pro Glu Glu  
 65 70 75 80

Thr Asn Ala Ser Phe Ser Gly Asp Ser Ser Asp Trp Gly  
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<210> 19  
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 <212> DNA  
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<220>  
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 <222> (1)..(940)  
 <223> LP417

<400> 19

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tgattccagt gactggggat agtgaaggtg ctacgggtgca gctgactcca tattttccta 180

## X15815.ST25.National.txt

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gtgcagaact tctccatgtc aagcagcagg tgtcagcagg aaaaagatca caagcctgcc 900
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<210> 20
<211> 46
<212> PRT
<213> Homo sapiens

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<220>
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<222> (1)..(46)
<223> LP417

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<400> 20
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Met Ser Leu Val Leu Leu Ser Leu Ala Ala Leu Cys Arg Ser Ala Val
1          5          10          15

```

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Pro Arg Glu Pro Thr Val Gln Cys Gly Ser Glu Thr Ala Thr Pro Glu
          20          25          30

```

```

Glu Thr Asn Ala Ser Phe Ser Gly Asp Ser Ser Asp Trp Gly
          35          40          45

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<210> 21
<211> 1352
<212> DNA
<213> Homo sapiens

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<220>
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<222> (1)..(1352)
<223> LP418

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<400> 21
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## X15815.ST25.National.txt

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cttctccatg tcaagcagca ggtgtcagca ggaaaaagat cacaagcctg ccacgatggc 1320
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<210> 22
<211> 135
<212> PRT
<213> Homo sapiens

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<220>
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<222> (1)..(135)
<223> LP418

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<400> 22
```

```
Met Ser Leu Val Leu Leu Ser Leu Ala Ala Leu Cys Arg Ser Ala Val
1           5           10          15
```

```
Pro Arg Glu Pro Thr Val Gln Cys Gly Ser Glu Thr Gly Pro Ser Pro
20          25          30
```

```
Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu Arg Asp Leu
```

35

X15815.ST25.National.txt  
40 45Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly Asp Tyr Ser Ile  
50 55 60Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp Ala Ser Ile Arg Leu  
65 70 75 80Leu Lys Ala Thr Lys Ile Cys Val Thr Gly Lys Ser Asn Phe Gln Ser  
85 90 95Tyr Ser Cys Val Arg Cys Asn Tyr Thr Glu Ala Phe Gln Thr Gln Thr  
100 105 110Arg Pro Ser Gly Gly Lys Glu Ala Cys Gly Ile Arg Thr Ser Leu Leu  
115 120 125Val Arg Arg Met Arg Arg Gln  
130 135<210> 23  
<211> 1210  
<212> DNA  
<213> Homo sapiens<220>  
<221> misc\_feature  
<222> (1)..(1210)  
<223> LP419

```

<400> 23
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tgaacacagt ctatttcatt ggggcccata atattcctaa tgcaaatatg aatgaagatg 180
gcccttccat gtctgtgaat ttcacctcac caggaagcct gtgggatccg aacatcactg 240
cttgtaagaa gaatgaggag acagtagaag tgaacttcac aaccactccc ctgggaaaca 300
gatacatggc tcttatccaa cacagcacta tcatcgggtt ttctcaggtg tttgagccac 360
accagaagaa acaaacgca gcttcagtgg tgattccagt gactggggat agtgaaggtg 420
ctacggtgca gctgactcca ttttttcta cttgtggcag cgactgcac cgacataaag 480
gaacagttgt gctctgcca caaacaggcg tccctttccc tctggataac aacaaaagca 540
agccgggagg ctggctgcct ctctctctgc tgtctctgct ggtggccaca tgggtgctgg 600
tggcagggat ctatctaata tggaggcacg aaaggatcaa gaagacttcc ttttctacca 660
ccacactact gccccccatt aaggttcttg tggtttacct atctgaaata tgtttccatc 720
acacaatttg ttacttcact gaatttcttc aaaaccattg cagaagtga gtcaccttg 780
aaaagtggca gaaaaagaaa atagcagaga tgggtccagt gcagtggctt gccactcaaa 840

```

x15815.ST25.National.txt

```

agaaggcagc agacaaagtc gtcttccttc tttccaatga cgtcaacagt gtgtgcgatg 900
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```

```

<210> 24
<211> 49
<212> PRT
<213> Homo sapiens

```

```

<220>
<221> MISC_FEATURE
<222> (1)..(49)
<223> LP419

```

<400> 24

```

Met Ser Leu Val Leu Leu Ser Leu Ala Ala Leu Cys Arg Ser Ala Val
1          5          10          15

```

```

Pro Arg Glu Pro Thr Val Gln Cys Gly Ser Glu Thr Val Asp Ile Phe
20          25          30

```

```

Leu Tyr Arg Leu Pro Cys Arg Ala Glu His Ser Leu Phe His Trp Gly
35          40          45

```

Pro